## INTERNATIONAL SEARCH REPORT

nal Application No PCT/IB2004/001533

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H01021/30 H01021/28

H01Q1/52

H01Q13/10

H01Q9/04

H01Q1/24

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC  $\frac{1}{7}$  H01Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

Category °	Citation of document, with Indication, where appropriate, of the relevant passages	Relevant to claim No.	
Y	EP 1 128 467 A (SMARTEQ WIRELESS AB) 29 August 2001 (2001-08-29) the whole document	1-10	
Y	WO 01/71846 A (DOUGLAS MARK GORDON; ERICSSON INC (US); WILCOX BRUCE EMERSON (US)) 27 September 2001 (2001-09-27) the whole document	1-10	
A	EP 0 680 161 A (NIPPON ELECTRIC CO) 2 November 1995 (1995-11-02) column 3, line 16 - line 30; figure 1	1,9	
A	FR 2 826 186 A (CENTRE NAT RECH SCIENT) 20 December 2002 (2002-12-20) page 12, line 9 - page 13, line 27; figures 14-16	1-10	
	-/ <del></del>		

X Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.
Special categories of cited documents:	
<ul> <li>'A' document defining the general state of the art which is not considered to be of particular relevance</li> <li>'E' earlier document but published on or after the international filing date</li> <li>'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</li> <li>'O' document referring to an oral disclosure, use, exhibition or other means</li> <li>'P' document published prior to the international filing date but later than the priority date claimed</li> </ul>	<ul> <li>T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</li> <li>X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>document member of the same patent family</li> </ul>
Date of the actual completion of the international search	Date of malling of the international search report
2 August 2004	09/08/2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk	Authorized officer
Tel. (+31~70) 340-2040, Tx. 31 651 epo nl, Fax: (+31~70) 340-3016	Moumen, A
OF DOTADA DAG A	······································

## INTERNATIONAL SEARCH REPORT

Inte nal Application No
PCT/IB2004/001533

Category °	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Calegory *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002/175879 A1 (FRANTZIS PANAYIOTIS ET AL) 28 November 2002 (2002-11-28) figures 15,16	1,9
		,
	·	

## INTERNATIONAL SEARCH REPORT

ormation on patent family members

Intel Ial Application No
PCT/IB2004/001533

			101/105004/001033		
Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 1128467	A 	29-08-2001	EP SE US	1128467 A2 0000575 A 2001015703 A1	29-08-2001 23-08-2001 23-08-2001
W0 0171846	A 	27-09-2001	AU EP WO	4754701 A 1269566 A1 0171846 A1	03-10-2001 02-01-2003 27-09-2001
EP 0680161	Α	02-11-1995	JP JP AU AU DE DE EP US	2581444 B2 7297749 A 693859 B2 1765895 A 69503307 D1 69503307 T2 0680161 A1 5701603 A	12-02-1997 10-11-1995 09-07-1998 09-11-1995 13-08-1998 05-11-1998 02-11-1995 23-12-1997
FR 2826186	Α	20-12-2002	FR CA EP WO	2826186 A1 2449359 A1 1407512 A1 02103844 A1	20-12-2002 27-12-2002 14-04-2004 27-12-2002
US 2002175879	A1	28-11-2002	US US AU WO	2002000944 A1 2004056812 A1 2785101 A 0152353 A2	03-01-2002 25-03-2004 24-07-2001 19-07-2001